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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/643,578	08/18/2003	Nicholas Leventis	423.019US1	3949
21186	7590	03/29/2006	EXAMINER	
SCHWEGMAN, LUNDBERG, WOESSNER & KLUTH 1600 TCF TOWER 121 SOUTH EIGHT STREET MINNEAPOLIS, MN 55402			COONEY, JOHN M	
			ART UNIT	PAPER NUMBER
			1711	

DATE MAILED: 03/29/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

cm

Office Action Summary

Application No.

10/643,578

Applicant(s)

LEVENTIS ET AL.

Examiner

John m. Cooney

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS; WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 January 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-31 and 36-70 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-31 and 36-70 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 August 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Applicant's arguments filed 1-3-06 have been fully considered but they are not persuasive.

The following rejections are set forth as new or maintained herein:

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 25-39, and 50-70 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Claim 25, 39, 50, 65&68, and 66,67,69 & 70 lack support for the recitations pertaining to - the crosslinking agent being deposited on the surfaces surrounding the internal pores of a preformed sol-gel material, the cross-linked sol-gel material being stronger or more robust than a non-crosslinked sol-gel material, solvent exchange operations, filling pores with xerogels & aerogels, and employing surrounding areas as templates, respectively. Support for these limitations now set forth in the claims is not provided for in the originally filed supporting disclosure. This is a new matter rejection.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 4-17, 20-31, 36, and 39-70 are rejected under 35 U.S.C. 102(b) as being anticipated by Kawakami et al. (6,364,953).

Kawakami et al. disclose preparations of crosslinked silica aerogels, prepared by forming a sol-gel material combined with gellation initiator, solvent to form a wet-gel film followed by drying through supercritical and sub-critical drying processes, which read on the products and processes of applicants' claims (see column 7 lines 39-44, column 15 line 3 – column 20 line 40, and example 1, as well as, the entire document).

Applicants' argument have been considered, but rejection is maintained for the reasons set forth again above. Claims rejected are maintained to employ an agent for crosslinking to the degree required to meet the claims as they stand without specific crosslinking agents being recited in the claims. That crosslinking occurs in the materials of Kawakami et al. is inherent evidence that an agent for crosslinking is present in the materials of Kawakami et al. to the degree currently required by the claims. Applicants' new claims 65-70 have been considered, but employment of solvent is disclosed by the teachings of Kawakami et al. as indicated above, and the recitations as to the behaviors

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of the materials involved are held to be inherent features associated with the materials of Kawakami et al. based on the likeness of the materials employed.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2,3,18,19,37, and 38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kawakami et al. as applied to claims 1, 4-17,20-36, and 39-64 above, and further in view of Barsotti et al.(6,428,898).

Kawakami et al. differs from applicants' claims in that isocyanate crosslinking is not required. However, Barsotti et al. discloses use of isocyanate and other crosslinkers in the reactions with silicon/hydroxyl components for the purpose of imparting their crosslinking effect. Accordingly, it would have been obvious for one having ordinary skill in the art to have employed the crosslinkers of Barsotti et al. as crosslinking agents in the preparations of Kawakami et al. for the purpose of imparting their crosslinking effect in the preparations prepared in order to arrive at the products processes of applicants' claims with the expectation of success in the absence of a showing of new or unexpected results.

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Applicants' arguments have been considered, but rejection is maintained for the reasons set forth above. It is maintained that the combination of references as set forth above is proper for the reasons set forth above, and motivation to combine for the reasons as set forth above is maintained to be proper. Though crosslinking effects may be reduced in some applications of the combinations of the referenced teaching does not negate the position of prima facie obviousness as the combination is applied in the instant case. Barsotti et al. discloses employment of the crosslinkers of applicants' claims in applications at least reasonably pertinent to the endeavors of Kawakami et al. The combination is maintained to be proper, and showings of unexpected results which are commensurate in scope with the scope of the instant claims have not been set forth in order to overcome the position held.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

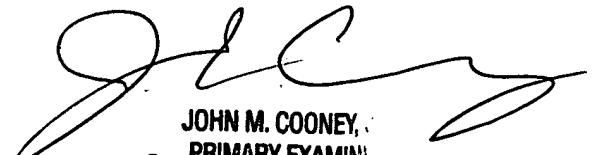
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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John Cooney whose telephone number is 571-272-1070. The examiner can normally be reached on M-F from 9 to 6.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Seidleck, can be reached on 571-272-1078. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


JOHN M. COONEY,
PRIMARY EXAMINER
Group 1700